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DEFENSE INDUSTRY  
CONSOLIDATION

Competitive Effects of  
Mergers and Acquisitions

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Mr. Chairman and Members of the Subcommittee:

We are pleased to be here this afternoon to discuss issues surrounding consolidation in the defense industry. As mandated by the 1998 Defense Authorization Act we have been reviewing mergers and acquisitions in the defense industry.<sup>1</sup> Fifty mergers and acquisitions have occurred in just the last few years. These transactions have raised questions about which defense market areas have been affected and how to preserve competition in these areas.

Today, we will provide a brief overview of

- consolidation in the defense industry,
- approaches to preserving competition in a more concentrated industry, and
- the status of Department of Defense (DOD) initiatives to improve its monitoring of competition.

After this overview, we will provide details about each of these issues.

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## Overview

The sharp decline in spending by DOD since 1985 has resulted in a dramatic consolidation in the defense industry. The defense industry is more concentrated today than at any time in more than half a century. As the single customer for many products of the defense industry, DOD must have the ability to identify and address potential harmful effects of mergers and acquisitions.

Questions have been raised about whether the consolidation has gone too far—adversely affecting competition in the industry. Many defense industry transactions are recent, and there is little evidence that the increased consolidation has adversely affected current DOD programs. Antitrust reviews have identified some problems, and remedies have been implemented. However, the consolidation could pose future problems unless DOD takes actions to improve its ability to identify problem areas and devise alternative ways to maintain competition in defense acquisition programs. There are several approaches DOD can take to maintain competition. For example, it can design acquisition strategies to compete missions rather than products and direct research and development funding to develop alternative suppliers or technologies. However, DOD cannot know what action to take unless it has adequate visibility into the

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<sup>1</sup>National Defense Authorization Act for Fiscal Year 1998, (P.L. 105-85), November 18, 1997.

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industrial base—especially at the lower tiers. Progress has been slow in gaining that visibility.

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## Consolidation in the Defense Industry

Since 1990, there has been a dramatic reduction in the number of prime contractors in some defense markets. The number of contractors declined in 10 of the 12 markets DOD identified as important to national security. The largest reductions have been in the tactical missile, fixed-wing aircraft, and expendable launch vehicle markets. For example, the number of contractors producing tactical missiles has dropped from 13 to 3. Only two contractors now compete in such key defense markets as fixed-wing aircraft, expendable launch vehicles, tracked combat vehicles, strategic missiles, and torpedoes. Appendix I shows changes in the number of contractors in defense markets identified by DOD as important.

These changes were not unexpected. DOD has encouraged the defense industry to consolidate facilities and eliminate excess capacity to remain competitive and financially viable. DOD expects that significant cost savings will result from the consolidation.

Three huge firms—Boeing, Lockheed Martin, and Raytheon—have emerged from recent mergers and acquisitions. Together, the three firms receive a substantial portion of what DOD spends annually to acquire its weapons and other products.

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## Approaches to Preserving Competition During Defense Industry Consolidation

DOD can take several approaches to ensure competition in today's more concentrated defense industry. Thus far, the government's antitrust review process has been used to identify and remedy potentially adverse effects of proposed mergers or acquisitions. Responsibility for conducting antitrust reviews and approving mergers and acquisitions lies with the Department of Justice and the Federal Trade Commission. In recent years, DOD has become more involved in antitrust reviews by sharing information and working more closely with the antitrust enforcement agencies.

Through collective efforts, the Department of Justice, Federal Trade Commission, and DOD have identified a number of situations where proposed mergers or acquisitions could adversely affect DOD programs. In such cases, they used consent decrees<sup>2</sup> to address potential problems.

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<sup>2</sup>Consent decrees are agreements by the parties to a proposed transaction to take specific steps to alleviate antitrust concerns.

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Consent decrees were proposed and accepted in 10 of the mergers and acquisitions.

The predominant concern addressed by the consent decrees was the potential compromise of a company's financial, business, or technical information. The usual remedy in these situations has been to require "firewalls"<sup>3</sup> to prevent the disclosure of such information. Consent decrees also have addressed concerns about teaming arrangements and other exclusionary behavior. In these cases, the merging or acquiring companies were required to divest certain assets.

In the long term, DOD's ability to address the potential adverse effects of consolidation will depend upon its ability to identify problem areas and devise alternative ways to maintain competitive pressures in its acquisition programs. DOD can do so in several ways. For example, DOD can direct its science and technology investments to encourage new companies to enter the defense market. DOD can also fund alternative technologies to meet the warfighters' needs and devise strategies to compete various approaches and missions, for example, missiles versus aircraft. And it can (1) require major defense contractors to use open-system architectures<sup>4</sup> in designing weapons programs, (2) make subtler competition a specific source-selection criterion and contract requirement, and (3) explore opportunities to meet military needs through greater cooperative efforts with international partners.

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## Initiatives to Monitor Competition

In May 1996, DOD tasked the Defense Science Board to determine whether problems were being created as a result of vertical integration, that is, mergers or acquisitions that add supplier product lines to a firm that also makes products at a higher tier. The Board reported that it could not measure the extent of vertical integration because industry analysts and antitrust agencies neither measured it nor had a mechanism for measuring it. The Board concluded, however, that DOD was not in a position to recognize emerging problems because it lacked visibility at the lower levels of the industry. Consequently, the Board made a number of recommendations designed to improve DOD's visibility into the industrial base.

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<sup>3</sup>The term "firewalls" refers to arrangements created by a company to limit or prevent the exchange of competition sensitive information among parts of the company.

<sup>4</sup>Open system architecture refers to a design approach where the contractor defines system interfaces to a set of standards that a number of suppliers agree to meet. This makes supplier products more interchangeable in the design, and allows a wider range of suppliers to participate in producing defense systems.

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DOD agreed with the recommendations and initiated plans to (1) increase acquisition program managers' scrutiny of prime contractor teaming and supplier choices; (2) devise acquisition strategies to promote alternative concepts and new supplier entry; (3) increase the emphasis on industry knowledge and experience when filling DOD acquisition positions and (4) monitor a select group of technology areas to determine the impact of vertical integration. However, DOD has not yet fully implemented the recommendations because of the need to review several recent and complex mergers and acquisitions.

We believe it is important that DOD continue to implement the Board's recommendations because without a more active, ongoing monitoring of the defense industrial base, DOD may not be able to recognize emerging competition issues.

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Mr. Chairman, this concludes our statement. We will be glad to answer any questions you or other members of the Subcommittee may have.



# Defense Market Sectors

As part of its effort to ensure that certain capabilities to produce defense unique products continues to exist, DOD has identified industrial market sectors comprised of types of products or weapon systems important to U.S. national security interests. These range from tactical missiles to tracked combat vehicles. The following table lists the defense sectors that have experienced reductions in the number of companies competing or under contract between 1990 and 1998. Submarines and ammunition are not included since these sectors did not experience any changes.

**Table I.1: Prime Contractors in Defense Market Sectors (1990-98)**

Sector	Reduction in contractors	1990 contractors	1998 contractors
Tactical missiles	13 to 3	Boeing Ford Aerospace General Dynamics Hughes Lockheed Loral LTV Martin Marietta McDonnell Douglas Northrop Raytheon Rockwell Texas Instruments	Boeing Lockheed Martin Raytheon
Fixed-wing aircraft	8 to 2	Boeing General Dynamics Grumman Lockheed LTV-Aircraft McDonnell Douglas Northrop Rockwell	Boeing Lockheed Martin
Expendable launch vehicles	6 to 2	Boeing General Dynamics Lockheed Martin Marietta McDonnell Douglas Rockwell	Boeing Lockheed Martin
Satellites	8 to 5	Boeing General Electric Hughes Lockheed Loral Martin Marietta TRW Rockwell	Boeing Lockheed Martin Hughes Loral Space Systems TRW

(continued)

**Appendix I**  
**Defense Market Sectors**

<b>Sector</b>	<b>Reduction in contractors</b>	<b>1990 contractors</b>	<b>1998 contractors</b>
Surface ships	8 to 5	Avondale Bath Iron Works Bethlehem Steel Ingalls NASSCO Newport News Tacoma Tampa	Avondale Bath Iron Works Ingalls NASSCO Newport News
Tactical wheeled vehicles	6 to 4	Am General BMY GM Canada Oskosh Stewart & Stevenson Teledyne Cont. Motors	Am General GM Canada Oskosh Stewart & Stevenson
Tracked combat vehicles	3 to 2	FMC General Dynamics Harsco (BMY)	General Dynamics UDLP
Strategic missiles	3 to 2	Boeing Lockheed Martin Marietta	Boeing Lockheed Martin
Torpedoes	3 to 2	Alliant Tech Systems Hughes Westinghouse	Lockheed Martin Raytheon
Rotary wing aircraft	4 to 3	Boeing Bell Helicopters Sikorsky McDonnell Douglas	Boeing Bell Helicopters Sikorsky

Note: The table reflects the ongoing Lockheed Martin/Northrop Grumman merger as completed. The electronics sector is not included.

Source: GAO analysis of DOD data.



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